



ICSE 2026 EXAMINATION
SPECIMEN QUESTION PAPER
BIOLOGY
(SCIENCE PAPER – 3)

Maximum Marks: 80

Time allowed: Two hours

- Answers to this Paper must be written on the paper provided separately.*
- You will not be allowed to write during first 15 minutes.*
- This time is to be spent in reading the question paper.*
- The time given at the head of this Paper is the time allowed for writing the answers.*
- Section A is compulsory. Attempt any four questions from Section B.***
- The intended marks for questions or parts of questions are given in brackets [].*

Instruction for the Supervising Examiner

Kindly read aloud the Instructions given above to all the candidates present in the Examination Hall.

NOTE:

The Specimen Question Paper in the subject provides a realistic format of the Board Examination Question Paper and should be used as a practice tool. The questions for the Board Examination can be set from any part of the syllabus. However, the format of the Board Examination Question Paper will remain the same as that of the Specimen Question Paper.

SECTION A (40 Marks)

(Attempt *all* questions from this Section.)

Question 1

Choose the correct answers to the questions from the given options.

[15]

(Do not copy the question, write the correct answers only.)

(i) Allen's blood report showed an abnormal decrease in the number of R.B.C. He is suffering from:

- (a) Polycythemia
- (b) Erythropenia
- (c) Glycosuria
- (d) Haemophilia

[Application]

(ii) A farmer notices that storing ripe mangoes with unripe ones speeds up the ripening process. The phytohormone primarily responsible for this phenomenon is:

- (a) Auxins
- (b) Cytokinins
- (c) Gibberellins
- (d) Ethylene

[Analysis]

(iii) **Assertion (A) :** Oxygen is produced during light dependent reactions of photosynthesis.

Reason (R) : Oxygen is released as a byproduct during photolysis.

- (a) (A) is true and (R) is false.
- (b) (A) is false and (R) is true.
- (c) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (d) Both (A) and (R) are true but (R) is not the correct explanation of (A).

[Understanding]

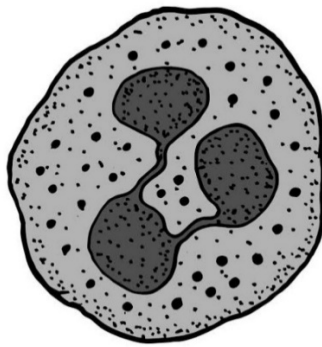
(iv) Reena gets emotionally stressed when the school examinations are approaching. Which hormone is responsible for this condition?

- (a) Adrenaline
- (b) Thyroxine
- (c) Insulin
- (d) Growth hormone

[Application]

(v) The diagram given below is that of a Neutrophil.

The function is _____ :



- (a) secreting hormone
- (b) transporting food
- (c) phagocytosis
- (d) producing antibodies

[Understanding
& Recall]

(vi) **Assertion (A):** Pituitary gland is known as the master gland.

Reason (R): It regulates the activities of other exocrine glands.

- (a) (A) is true and (R) is false.
- (b) (A) is false and (R) is true.
- (c) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (d) Both (A) and (R) are true but (R) is not the correct explanation of (A).

[Understanding]

- (vii) Aruna went to a theatre to watch a movie on a bright sunny morning. As she came out of the theatre, she felt a dazzling effect and could not open her eyes. After a few minutes her vision became normal. This is due to:



- (a) Accommodation of eye
- (b) Mutation
- (c) Polarisation
- (d) Adaptation of eyes

[Analysis]

- (viii) Reflex actions provide a survival advantage because they:

- (a) are controlled by the cerebrum.
- (b) are controlled by the medulla oblongata.
- (c) require no conscious thought, allowing rapid responses.
- (d) always involve the spinal cord.

[Recall]

- (ix) Industrial melanism is the phenomenon by which the peppered moth:

- (a) die due to industrial growth.
- (b) in polluted areas, became darker in colour for better camouflage.
- (c) became lighter in colour due to natural selection.
- (d) became resistant to industrial pollution.

[Understanding
& Recall]

(x) The hormone that maintains the thickening of the endometrium during pregnancy is:

- (a) Oestrogen
- (b) ACTH
- (c) Progesterone
- (d) Oxytocin

[Recall]

(xi) The onset of menstruation in a human female is called:

- (a) Menopause
- (b) Menarche
- (c) Ovulation
- (d) Oogenesis

[Understanding
& Recall]

(xii) The number of autosomes and allosomes present in a human cell:

- (a) 22 allosomes, 1 autosome
- (b) 22 pairs of autosomes, 1 pair of allosome
- (c) 22 autosomes, 1 allosome
- (d) 22 pairs of allosomes, 1 pair of autosome

[Recall]

(xiii) Cultural revolution favours a steep rise in human population. Identify the correct sequence of revolution:

- (a) Tool making, Scientific and Industrial, Agricultural
- (b) Agricultural, Tool making, Scientific and Industrial
- (c) Scientific and Industrial, Agricultural, Tool making
- (d) Tool making, Agricultural, Scientific and Industrial

[Understanding]

- (xiv) Tanvi tried to match the phases of menstrual cycle with the number of days as given in the table below:

PHASE	DAYS
P – Follicular Phase	Day 5 – 12
Q – Luteal Phase	Day 15 – 28
R – Menstrual Phase	Day 3 – 5
S – Ovulatory Phase	Day 13 or 14

Identify the correct sequence:

- (a) P, Q, R, S
- (b) Q, S, R, P
- (c) R, P, S, Q
- (d) S, R, P, Q

[Application]

- (xv) Aditya who is fond of roller skating. Identify the correct terms which help him to maintain his body balance:

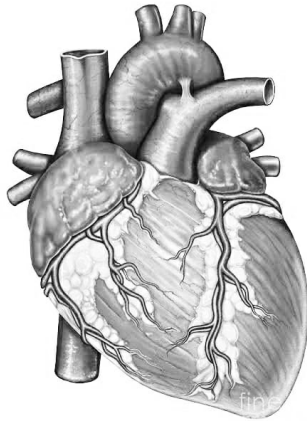


- (a) Cerebellum, Semicircular canals, Vestibule
- (b) Vestibule, Sclera, Cerebrum
- (c) Malleus, Semicircular canals, Utriculus
- (d) Sacculus, Stapes, Cochlea

[Analysis &
Application]

Question 2

- (i) Give the biological/technical terms for the following: [5]
- (a) A mixture of smoke and fog.
 - (b) The inner lining of uterus.
 - (c) The pressure that is responsible for the movement of water molecules across the cortical cells of the root.
 - (d) The ground substance present in a chloroplast.
 - (e) The fluid present between the layers of meninges.
- (ii) Given below is the diagram of a human heart. Read the information below the diagram and fill in the blanks: [5]



The human heart pumps blood throughout the body. It is the size of a large fist. The heart is located between the lungs in the thoracic cavity. It has four chambers. The heart functions all through the lifespan of a person and is responsible for the survival of the person.

The heart is enclosed by a membrane called (a) _____ (*Pericardium / Pleura*). The ventricles give rise to two large blood vessels called (b) _____ (*Pulmonary vein / Pulmonary artery*) and (c) _____ (*Aorta / Venacava*). The flaps of the cuspid valves are kept in position by (d) _____ (*Chordae tendinae / Endometrium*). (e) _____ (*Hepatic / Coronary*) arteries supply oxygenated blood to the walls of the heart.

[Recall]**[Recall &
Application]**

(iii) Choose the odd term out from each of the following set of terms. Mention the category to which the remaining three belong: [5]

- (a) Sulphur dioxide, Oxygen, Carbon monoxide, Nitrogen dioxide.
- (b) Pons, Epidermis, Xylem, Phloem.
- (c) Tympanum, Pinna, Auditory canal, Malleus.
- (d) Ureter, Urethra, Uterus, Renal Pelvis.
- (e) Stomata, Lenticles, Cuticle, Root hair.

[Understanding & Application]

(iv) Rajeev, a 10 year old boy, went to an Ophthalmologist to get his eyes tested. He noticed a poster in the clinic with questions related to the parts of human eye. Help Rajeev answer the questions: [5]

- (a) Which is the fluid that lubricates the eye?
- (b) Which cells help in colour vision?
- (c) Which nerve sends impulses from the eyeball to the brain?
- (d) Name the structure that gives colour to the eyes.
- (e) Name the part that allows entry of light rays into the eye.

[Application & Recall]

(v) Study the diagram given below and match the structure with its function: [5]

Example: Scrotum - (f)

Structure	Functions
	<ul style="list-style-type: none"> (a) Secrete Testosterone (b) Transports sperms to Epididymis (c) Stores sperms till maturation (d) Transport sperms to urethra (e) Produce sperms (f) Regulates temperature of Testis.

[Understanding & Recall]

SECTION B (40 Marks)

(Attempt **any four** questions from this Section.)

Question 3

- (i) Explain the term *Menarche*. [1]
[Recall]
- (ii) In what form is water lost during transpiration and guttation from plants? [2]
[Recall]
- (iii) Ayush was in the final round of a carrom match. He was focussing intently on the strokes of the opponent player. [2]



- (a) Which part of the brain helps Ayush to focus on the game? [1]
[Recall]
- (b) Name the part of the brain that co-ordinates his muscles while using the striker. [2]
[Analysis & Application]
- (iv) State the permeability of cell membrane and cell wall. [2]
[Recall]
- (v) Draw a neat, labelled diagram of a cross section of an Artery and a Vein. [3]
[Understanding & Skill]

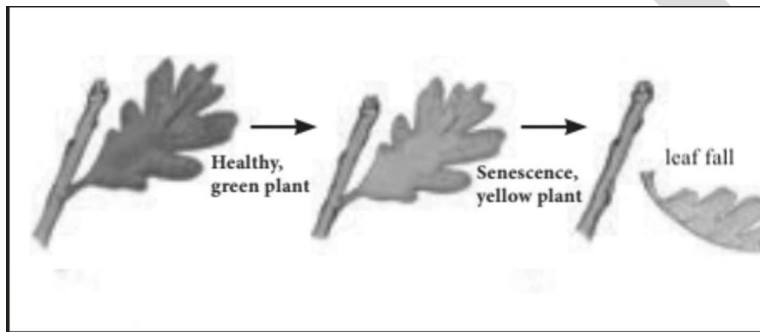
Question 4

- (i) What is Excretion? [1]
[Recall]
- (ii) Differentiate between *Diabetes mellitus* and *Diabetes insipidus* with reference to the hormone involved. [2]
[Understanding]

(iii) Give the common name and the scientific name of the plant on which Gregor Mendel conducted his breeding experiments. [2]
[Recall]

(iv) Name the tonicity of the solutions for a living cell to show Endosmosis and Exosmosis. [2]
[Understanding & Recall]

(v) Plant hormones are produced in extremely low concentrations in plants to regulate the physiological processes and tropic movements – [3]



- (a) Name one plant hormone responsible for the changes shown in the above picture.
- (b) Identify a hormone that has an opposite effect to the one depicted in the picture.
- (c) Give an example of a plant that shows Thigmotropism.

[Analysis & Application]

Question 5

(i) What are non-biodegradable wastes? [1]
[Understanding & Recall]

(ii) Mention *any two* objectives of the *Swachh Bharat Abhiyan*. [2]
[Recall]

(iii) Arrange the following *food chain* in a proper sequence: [2]

- (a) Small fish, Penguin, Algae, Seal, Mosquito larvae
- (b) Woodpecker, Caterpillar, Mountain lion, Fox, Cabbage

[Understanding]

(iv) Mention the number of cranial nerves and spinal nerves in a human being. [2]

[Recall]

(v) Surya used a plant with variegated leaves for an experiment on photosynthesis. He tested a leaf with iodine after keeping the plant in sunlight for a few hours. [3]



(a) Which parts of the leaf will turn blue black after the iodine test?

(b) What does this tell us about the role of chlorophyll in photosynthesis?

[Application &
Recall]

(c) Write the overall chemical equation for photosynthesis.

Question 6

(i) State Mendel's Law of Dominance. [1]

[Recall]

(ii) State the rate of transpiration when the air surrounding a plant has: [2]

(a) more atmospheric humidity.

(b) hot and dry air.

[Understanding
& Application]

(iii) Expand the following abbreviations: [2]

(a) ACTH

(b) ADH

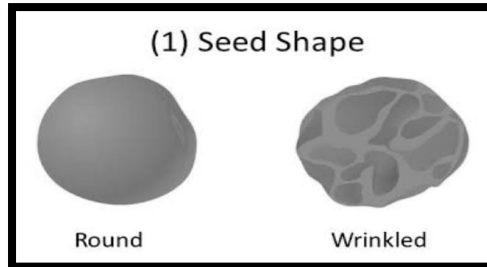
[Recall]

(iv) Which part of the ear equalizes air pressure on either side of the ear drum? [2]

Where is this structure located?

[Understanding
& Recall]

- (v) Santosh loved his garden, especially his pea plants. One year, he noticed that all the pea plants he grew from one batch of seeds had round seeds. Curious, he took the seeds from one of those plants and grew a new generation. To his surprise, 75% of the new plants had round seeds, but 25% had wrinkled seeds. [3]

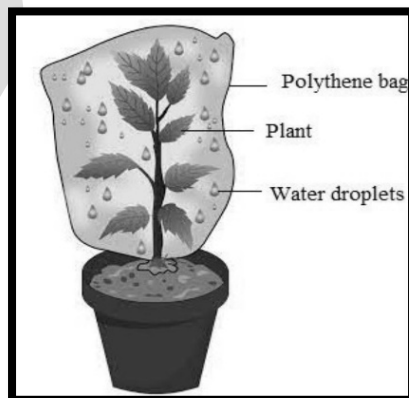


- (a) What were the genotypes of the parent plants that Santosh originally planted?
- (b) Which trait is dominant – round or wrinkled seeds?
- (c) What is the genotypic ratio of the second generation (F₂) plants?

[Analysis]

Question 7

- (i) Explain the term *Natality*. [1]
[Recall]
- (ii) Distinguish between Sympathetic system and Parasympathetic system on the basis of heartbeat. [2]
[Understanding & Recall]
- (iii) Meena covered a potted plant as shown below with a transparent plastic bag. She observed water droplets inside the bag after a few hours when kept in sunlight. [2]



- (a) Name the process that resulted in the formation of water droplets inside the bag. [Analysis & Application]
- (b) Define the process mentioned above. [2]
- (iv) Mention the regions of the kidney where we can find glomerulus and Henle's loop. [Understanding & Recall]
- (v) Draw a neat, labelled diagram to show the internal structure of a root hair. [3]
- [Analysis & Application]

Question 8

- (i) How does the ozone layer depletion affect life on earth? [1]
- [Application]
- (ii) Mention two body features of *Australopithecus*. [2]
- [Recall]
- (iii) Identical twins are always of the same gender. Explain why. [2]
- [Understanding]
- (iv) We should not insert sharp objects into the ear to remove ear wax. Give a suitable reason. [2]
- [Application]
- (v) In a school experiment, a few students grow plants in pots placed horizontally as shown below. After a few days, the students observed that the roots bent downward, and the shoots curved upward. [3]



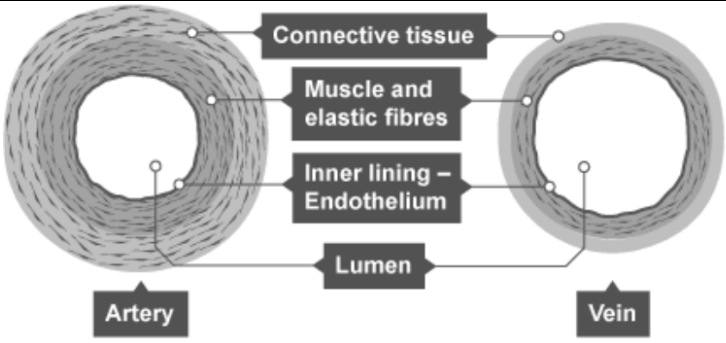
- (a) Name the tropic movement seen in shoots.
- (b) Why do roots always grow downwards? [Analysis & Application]
- (c) Which phytohormone regulates the above tropic movements?

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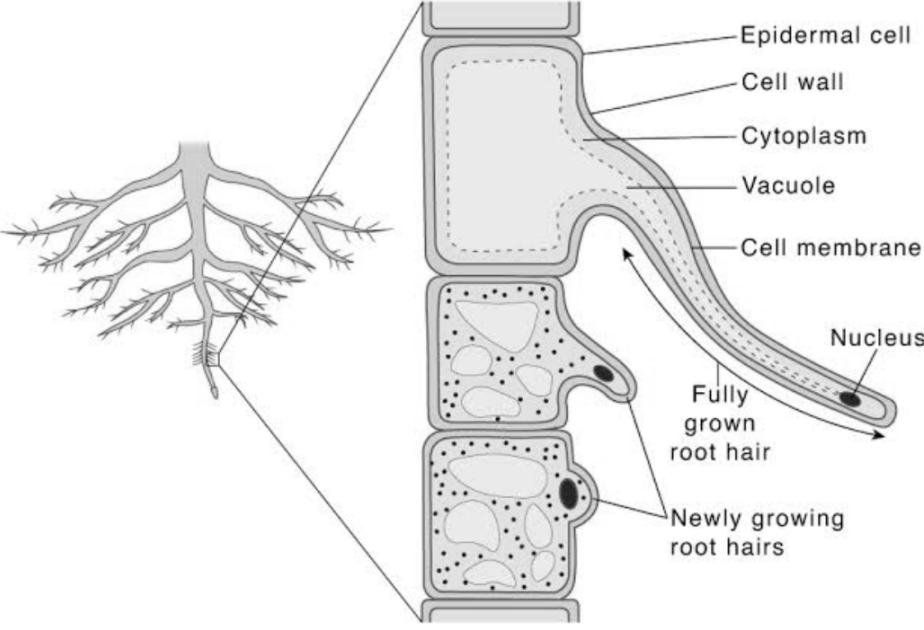
DRAFT MARKING SCHEME – BIOLOGY (SCIENCE PAPER 3)

Question 1		[15x1]
(i)	(b) Erythropenia	
(ii)	(d) Ethylene	
(iii)	(c) Both (A) and (R) are true and (R) is the correct explanation of (A).	
(iv)	(a) Adrenaline	
(v)	(c) Phagocytosis	
(vi)	(a) (A) is True but (R) is False	
(vii)	(d) Adaptation of eyes	
(viii)	(c) Require no conscious thought, allowing rapid responses.	
(ix)	(b) In polluted areas became darker in colour for better camouflage.	
(x)	(c) Progesterone	
(xi)	(a) Vasectomy in males, Tubectomy in females	
(xii)	(b) 22 pairs of autosomes, 1 pair of allosome	
(xiii)	(d) Tool making, Agricultural, Scientific and Industrial	
(xiv)	(c) R, P S, Q	
(xv)	(a) Cerebellum, Semicircular canals, Vestibule	
Question 2		
(i)	(a) Smog (b) Endometrium (c) Root pressure (d) Stroma (e) Cerebrospinal fluid	[5x1]
(ii)	(a) Pericardium (b) Pulmonary artery (c) Aorta (d) Chordae tendinae (e) Coronary	[5x1]

(iii)	Odd term	Category	[5x1]
	(a) Oxygen	Air pollutants	
	(b) Pons	Plant tissues	
	(c) Malleus	Parts of outer Ear	
	(d) Uterus	Parts of Urinary system	
	(e) Root hair	Parts through which transpiration takes place.	
(iv)	(a) Tears (b) Cones (c) Optic nerve (d) Iris (e) Pupil		[5x1]
(v)	(a) Interstitial cells (b) Efferent Ducts (c) Epididymis (d) Vas deferens (e) Seminiferous tubules		[5x1]
Question 3			
(i)	It is the onset of menstruation in a young female around the age of 13 years.		[1]
(ii)	Transpiration – As water vapour Guttation – As water droplets		[2]
(iii)	(a) Cerebrum (b) Cerebellum		[2]
(iv)	(a) Cell membrane - Semipermeable (b) Cell wall – Freely permeable		[2]

(v)		[3]
Question 4		
(i)	It is the removal of harmful nitrogenous waste products from the body.	[1]
(ii)	Diabetes mellitus – Hyposecretion of Insulin. Diabetes insipidus – Hyposecretion of ADH.	[2]
(iii)	Common name – Garden pea Scientific name – <i>Pisum sativum</i>	[2]
(iv)	Endosmosis – Hypotonic solution Exosmosis – Hypertonic solution	[2]
(v)	(a) Abscisic acid, Ethylene (b) Auxin (c) Peas, Grapes, Ivy	[3]
Question 5		
(i)	Materials that can not be broken down by the microorganism. They persist in the environment causing pollution.	[1]
(ii)	- To eliminate open defecation - To clean streets, infrastructure of cities and towns	[2]
(iii)	(a) Algae, Mosquito larvae, Small fish, Seal, Penguin. (b) Cabbage, Caterpillar, Wood pecker, Fox, Mountain lion.	[2]
(iv)	Cranial nerves – 12 pairs Spinal nerves – 31 pairs	[2]
(v)	(a) Green parts	[3]

	(b) Green parts contain chlorophyll which traps sunlight for photosynthesis. (c) $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 + 6\text{H}_2\text{O}$ (Carbon dioxide) (Water) (Glucose) (Oxygen) (Water)	
Question 6		
(i)	Out of a pair of contrasting characters present together, only one is able to express itself while the other remains suppressed.	[1]
(ii)	(a) Less transpiration (b) More transpiration	[2]
(iii)	ACTH – Adreno Cortico Tropic Hormone ADH – Antidiuretic Hormone	[2]
(iv)	Eustachian tube. Located in the middle ear.	[2]
(v)	(a) Heterozygous dominant – Rr (b) Round (c) 1:2:1	[3]
Question 7		
(i)	It is the number of live births per 1000 people of population per year.	[1]
(ii)	Sympathetic System – Heartbeat increases. Parasympathetic System – Heartbeat decreases and becomes normal.	[2]
(iii)	(a) Transpiration (b) It is the loss of water as water vapour from the aerial parts of a plant.	[2]
(iv)	Glomerulus – Renal cortex Henle's loop – Renal medulla	[2]

(v)	<p style="text-align: center;">Root Hair</p> 	[3]
Question 8		
(i)	Causes skin cancer, cataract, reduced crop yields, harms marine life.	[1]
(ii)	<ul style="list-style-type: none"> - Chin absent - Prognathus face - Projecting eyebrow ridges 	[2]
(iii)	Because they develop from a single fertilised egg.	[2]
(iv)	It may rupture the ear drum leading to deafness.	[2]
(v)	<ul style="list-style-type: none"> (a) Phototropism (b) Because the roots are positively Geotropic and Hydrotropic. (c) Auxins 	[3]